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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,151	10/06/2003	Reinhard Stuber	P23910	5748
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GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			HINZE, LEO T	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,151

Applicant(s)

STUBER ET AL.

Examiner

Leo T. Hinze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 12-14, 18-23, 28, 29 and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Voge, US 6,516,721 (Voge).

a. Regarding claim 1, Voge teaches a printing mechanism of a machine capable of use in the tobacco processing industry comprising: a tempering device (70, Fig. 4), structured and arranged to adjust a temperature of ink in a least one of an ink supply.

The examiner is not giving patentable weight to the preamble because it does not recite any structure and it is not necessary to give life, meaning, and vitality to the claim. See MPEP § 2111.02. The examiner is treating the recitation of a machine of the tobacco processing industry as functional language. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Because claim 2 does not contain any further structural limitations, the examiner considers any printing machine capable of use as a cigarette machine. See MPEP § 2114.

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b. Regarding claim 2, Voge also teaches wherein the machine can be used as a cigarette machine.

The examiner is treating the recitation of a cigarette machine as functional language. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Because claim 2 does not contain any further structural limitations, the examiner considers any printing machine capable of use as a cigarette machine. See MPEP § 2114.

c. Regarding claim 3, Voge also teaches wherein said tempering device comprises at least one heating device (70, Fig. 4).

d. Regarding claim 4, Voge also teaches wherein said heating device is located with said ink supply (see location of item 70 in the ink supply of Fig. 4).

e. Regarding claim 5, Voge also teaches wherein said heating element comprises a heating cartridge (70, Fig. 4 shows a resistor heating element).

f. Regarding claim 12, Voge also teaches wherein said tempering device comprises a control or regulating unit ("heating device for heating the printing ink to a predetermined temperature", col. 2, ll. 20-22).

g. Regarding claim 13, Voge also teaches wherein the ink nozzle is an ink nozzle (36, Fig. 4).

h. Regarding claim 14, Voge also teaches a heating cartridge (70, Fig. 4 shows a resistor heating element) located to lie against said ink nozzle (note position of ink nozzle 36 with respect to heating cartridge 70, Fig. 4).

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- i. Regarding claim 18, Voge teaches a process for printing with a printing mechanism that includes a tempering device, said process comprising: adjusting a temperature of ink in at least one of an ink nozzle, ink supply and metering device in the printing mechanism via the tempering device (col. 2, ll. 21-24).
- j. Regarding claim 19, Voge also teaches wherein the printing mechanism is located within a machine of the tobacco processing industry. Voge teaches a printing machine (col. 1, ll. 9-10), and as the tobacco processing industry uses printing machines, a printing machine is a machine of the tobacco processing industry.
- k. Regarding claim 20, Voge also teaches wherein said machine is a cigarette rod machine. Voge teaches a printing machine (col. 1, ll. 9-10), and as cigarette rod machine includes a printing machine, a printing machine is a cigarette rod machine.
- l. Regarding claim 21, Voge also teaches wherein the tempering device includes at least one heating element (70, Fig. 4), and wherein the ink temperature is adjusted by the at least one heating device (col. 2, ll. 21-24).
- m. Regarding claim 22, Voge also teaches wherein the ink temperature is adjusted in the at least one of the ink supply, the metering device, and the ink nozzle of the printing' mechanism by the at least one heating element (col. 2, ll. 21-24).
- n. Regarding claim 23, Voge also teaches wherein the at least one heating element comprises a heating cartridge (70, Fig. 4 shows a resistor heating element).
- o. Regarding claim 28, Voge also teaches controlling or regulating the tempering device through a control or regulation device (col. 2, ll. 21-24).

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- p. Regarding claim 29, Voge also teaches heating the ink in the ink nozzle (col. 2, ll. 21-24).
 - q. Regarding claim 32, Voge also teaches a machine of the tobacco processing industry. Voge teaches a printing machine (col. 1, ll. 9-10), and as the tobacco processing industry uses printing machines, a printing machine is a machine of the tobacco processing industry
 - r. Regarding claim 33, Voge also teaches wherein said machine is a cigarette rod machine. Voge teaches a printing machine (col. 1, ll. 9-10), and as cigarette rod machine includes a printing machine, a printing machine is a cigarette rod machine.
 - s. Regarding claim 34, Voge also teaches guiding the paper strip to a printing mechanism ("printing machine", col. 1, ll. 9-10 implies printing, which implies paper or other substrate on which to print) having a tempering device (70, Fig. 4); and adjusting at least one of a temperature and a viscosity of the ink in the printing mechanism via the tempering device (col. 2, ll. 21-24).
3. Claims 1, 3, 7-9, 18, 21 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Feller et al., US 6,065,402 (Feller).
- a. Regarding claim 1, Feller teaches a printing mechanism of a machine capable of use in the tobacco processing industry comprising: a tempering device (9, Fig. 1), structured and arranged to adjust a temperature of ink in a least one of an ink supply.

The examiner is not giving patentable weight to the preamble because it does not recite any structure and it is not necessary to give life, meaning, and vitality to the claim. See MPEP § 2111.02. The examiner is treating the recitation of a machine of the tobacco processing industry as functional language. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of

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structure rather than function. Because claim 2 does not contain any further structural limitations, the examiner considers any printing machine capable of use as a cigarette machine. See MPEP § 2114.

b. Regarding claim 3, Feller also teaches wherein said tempering device comprises at least one cooling device (9, Fig. 1).

c. Regarding claim 7, Feller also teaches wherein said cooling element comprises a cooling plate (9, Fig. 1).

d. Regarding claim 8, Feller also teaches wherein said cooling element is structured and arranged for a medium to flow through the cooling element (10, Fig. 1).

e. Regarding claim 9, Feller also teaches wherein said ink supply (1, Fig. 1) and metering device (5, Fig. 1) are at least partially located on the cooling plate (see Fig. 1).

f. Regarding claim 18, Feller teaches a process for printing with a printing mechanism that includes a tempering device, said process comprising: adjusting a temperature of ink in at least one of an ink nozzle, ink supply and metering device in the printing mechanism via the tempering device (col. 1, ll. 55-56).

g. Regarding claim 21, Voge also teaches wherein the tempering device includes at least one cooling element (9, Fig. 1), and wherein the ink temperature is adjusted by the at least one cooling device (col. 1, ll. 55-56).

h. Regarding claim 24, Voge also teaches wherein the at least one cooling element comprises a cooling plate (9, Fig. 1), and wherein the ink temperature is adjusted by the cooling plate.

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- i. Regarding claim 25, Voge also teaches flowing a medium through the cooling element (10, Fig. 1; col. 3, ll. 20-25).
- j. Regarding claim 26, Voge also teaches wherein at least some components of the printing mechanism are located at least partially on the cooling plate, whereby the components are cooled by the cooling plate (col. 1, ll. 55-56; see arrangement of components, Fig. 1).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 6. Claims 1 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al., US 2001,0013289 A1 (Blau) in view of Voge.

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a. Regarding claim 1:

Blau teaches a printing mechanism (23, Fig. 2) of a machine of the tobacco processing industry comprising a tempering device (§ 0012, lines 2-3). Blau teaches regulating certain other important parameters such as the consistency of printing ink (§0047). Blau is silent as to the exact means used to regulate the consistency of the printing ink.

Voge teaches: said heating device (70, Fig. 4) being located with at least one of said ink supply (conduit 66, Fig. 4); that heating the ink has an effect on the viscosity and consistency of the ink (col. 3, lines 20-30).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Blau to heat the ink and locate the heating device in the ink supply, because Voge teaches that heating the ink is an effective way of regulating the consistency of the ink.

b. Regarding claim 16, the combination of Blau and Voge teaches all that is claimed as discussed in the rejection of claim 1 above. Blau also teaches a plurality of distributor rollers (44, Fig. 2), a stamp roller (48, Fig. 2), and a pressure roller (52, Fig. 2), wherein two of said plurality of distributor rollers (43, 46, Fig. 2) are arranged to receive ink from said ink nozzle, and said stamp roller and said pressure roller are arranged to guide a paper strip to be printed (21, Fig. 2).

7. Claims 6, 15 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voge in view of Garner et al., US 5,611,278 (Garner).

a. Regarding claim 6:

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Voge teaches all that is claimed as discussed in the rejection of claim 1 above, including feeding ink in a range of temperature and pressure, which implies sensors to ensure that proper pressure and temperature, although Voge is silent as to the location of such sensors (col. 3, lines 20-30).

Voge does not teach a temperature sensor positioned one of: near at least one of said ink supply, metering device, and ink nozzle; or on or in at least one of said ink supply, metering device, and ink nozzle.

Garner teaches a temperature controlled system for printing press, including a refrigeration and heating system (col. 2, lines 2-3), and an ink temperature sensor located in the ink supply system (col. 2, lines 11-14).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to further modify Voge to include a temperature sensor located in the ink supply, because Garner teaches a temperature sensor located in the ink supply, and a person having ordinary skill in the art would recognize that a sensor would make the regulation of temperature more efficient and accurate by allowing the control system to know the temperature of the ink, which would allow for more precise control of the temperature of the ink.

b. Regarding claims 15 and 30:

Voge teaches all that is claimed as discussed in the rejection of claims 13 and 18 above, including a range of temperature and pressure, which implies sensors to ensure that proper pressure and temperature, although Voge is silent as to the location of such sensors (col. 3, lines 20-30).

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Voge does not teach a temperature sensor positioned one of: in and on said ink nozzle.

Garner teaches a temperature controlled system for printing press, including a refrigeration and heating system (col. 2, lines 2-3), and an ink temperature sensor located in the ink supply system (col. 2, lines 11-14).

It has been held that the mere rearrangement of parts is not sufficient to patentably distinguish over the prior art. See MPEP§ 2144.04(VI).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Voge to include a temperature sensor located in or on the ink nozzle, because Garner teaches a temperature sensor located in the ink supply, and a person having ordinary skill in the art would recognize that: a temperature sensor would make the regulation of temperature more efficient and accurate by allowing the control system to know the temperature of the ink, which would allow for more precise control of the temperature of the ink; locating the temperature sensor on the ink nozzle would minimize the temperature drop of the ink after being sensed, thereby allowing more accurate control of the ink temperature of the ink deposited on the rollers.

8. Claims 10, 11 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feller in view of Ayers et al., US 5,810,927 (Ayers).

a. Regarding claims 10 and 27:

Feller teaches all that is claimed as discussed in the rejection of claims 1 and 18 above, except wherein said cooling element comprises a device structured to produce a cooled airflow.

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Ayres teaches an ink temperature control device (9, Fig. 1), including modules (10, Fig. 1) which include fans (11, Fig. 2) which blow air and create eddy currents and help maintain the temperature of the ink (col. 1, lines 37-39).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Feller to include a device to produce cooled airflow, because Ayres teaches that such a device is useful for cooling the ink, and a person having ordinary skill in the art would recognize that such a device would be advantageous in helping to regulate the temperature and the consistency of the ink.

b. Regarding claim 11, the combination of Feller and Ayers teaches all that is claimed as discussed in the rejection of claim 10 above. The combination also teaches wherein said cooling element comprises an eddy current generator (the fan of Ayres will create eddy currents in the air).

9. Claims 17 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voge in view of Dillig et al., US 6,024,015 (Dillig).

Regarding claims 17 and 31, Voge substantially teaches all that is claimed as discussed in the rejection of claims 1 and 18 above. Voge teaches controlling the pressure of the ink (col. 3, ll. 20-30), but is silent as to any pressure measurement devices.

Dillig teaches a pressurized inking system (Fig. 1), including a pressure monitor (17, Fig. 1) to ensure that an adequate ink supply is provided at all times.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Voge to include a pressure sensor in the ink nozzle, because

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Dillig teaches that pressure sensors in pressurized inking systems are advantageous for ensuring that an adequate ink supply is provided at all times.

Response to Arguments

10. Applicant's arguments filed 22 April 2005 have been fully considered but they are not persuasive.

11. Applicant's arguments filed 22 April 2005 with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

12. In response to applicant's argument on p. 10 that Blau and Voge are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is not clear how the applicant is attempting to distinguish Blau and Voge. Voge is in the field of applicant's endeavor which is printing with an ink nozzle, and Voge is reasonably pertinent to the particular problem with which applicant was concerned, that of controlling the temperature of ink. Applicant appears to be attempting to destroy the combination of Blau and Voge by distinguishing the structure of the two references, specifically that "the methods of conveying the ink in each apparatus are distinct from each other". However, as limited by the claims, the method of conveying ink in each apparatus is an ink nozzle, and both Blau and Voge teach ink nozzles. Further, both Blau and Voge "convey ink on the surface of a series of ink-conveying drums open to the surrounding air", as is shown by Fig. 2 of Blau and Fig. 6A of Voge.

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13. In response to applicant's arguments on p. 11 that there is no suggestion to combine the references of Blau and Voge because of an extreme difference in size between the apparatus of these references and the apparatus of the instant application, MPEP § 2144.04(IV) teaches that mere changes in size over prior art devices are not sufficient to establish patentability. In the case of these references, the examiner asserts that their combination with the Blau reference is proper and the necessary motivation is provided as discussed in the rejections under 35 U.S.C. § 103(a) above.

14. In response to applicant's arguments on pp. 10-11 that there is no suggestion to combine the references of Blau and Voge, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Blau teaches regulating certain other important parameters such as the consistency of printing ink (¶0047), and Voge teaches that heating the ink has an effect on the viscosity and consistency of the ink (col. 3, lines 20-30).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (571) 272-2167. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo T. Hinze
Patent Examiner
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22 July 2005



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